REMARKS/ARGUMENTS

Upon entry of this Amendment, which amends claims 6, 7-8, and 10, and adds new claims 11-20, and cancels claims 1-5, claims 6 – 20 will be pending. In the Office Action, claims 1 – 3 were rejected under 35 U.S.C. §102(e) as being anticipated by Wang, et al. (U.S. Publication No. 2005/0166038, hereinafter "Wang"); claim 10 was rejected under 35 U.S.C. §102(e) as being unpatentable over Mirsky (U.S. Publication No. 2001/0029515); claims 4, 8, and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wang in view of Mirsky; and claims 5 – 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wang in view of Abbott, et al. (U.S. Patent No. 6,601,158, hereinafter "Abbott"). Applicant respectfully requests reconsideration of the claims in view of the amendments above and remarks below.

Claims 6-9 and 18-20

Claim 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wang in view of Abbott. Applicant submits that Wang and Abbot, either alone or in combination, do not disclose or suggest every element of claim 6, as amended. For example, Wang and Abbot, either alone or in combination, fail to disclose or suggest a plurality of register files, wherein each register file in the plurality of registers is coupled to a group of data path lines in the plurality of data lines in a one-to-one correspondence, wherein each of the plurality of register files store values from the group of data lines in which each of the plurality of register files is coupled.

Wang discloses a register file 214 in Fig. 2. Abbott discloses register files 204 and 206 in Fig. 2. In both Wang and Abbott, the register files are coupled to all of a plurality of data lines. Thus, Wang and Abbott, either alone or in combination, do not disclose or suggest a plurality of groups of data lines and a plurality of register files where each register file is coupled to a group of data lines in a one-to-one correspondence. Rather, the register files are multiport and coupled to all of the data lines in Abbott and Wang.

Accordingly, Applicant respectfully requests withdrawal of the rejection of claim 6. Claims 7-9 and 18-20 depend from claim 6 and thus derive patentability at least therefrom. These claims also recite additional novel and nonobvious features. For example, claim 18 recites wherein each of the register files is only coupled to a single group of data path lines in the plurality of data lines through a single port. In contrast, the register files in Wang and Abbott are multiport.

Also, claim 19 recites wherein each of the register files is not coupled to at least one of the plurality of data lines. In contrast, the register files in Wang and Abbott are coupled to all of the data lines.

New Claims 11-17

Applicant submits that the cited references do not disclose or suggest every element of claims 11-17. For example, claim 11 recites a plurality of register files, wherein each register file in the plurality of registers is coupled to a single group of data lines in the plurality of data lines, wherein each of the plurality of register files store values from the group of data lines in which each of the plurality of register files is coupled.

Accordingly, Applicants submit that claims 11-17 should be allowable.

Claim 10

Claim 10 was rejected under 35 U.S.C. §102(e) as being unpatentable over Mirsky. Claim 10 recites a configurable data path coupled to both the multiplier and the accumulator in parallel and a direct data path coupled between the multiplier and the accumulator. Mirsky does not disclose or suggest a configurable data path that is coupled in parallel to both the multiplier and accumulator in Fig. 4. Rather, the data paths are coupled in series or to the multiplier or accumulator separately in Mirsky.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 10.

Applicant respectfully submits that the present claims are in condition for allowance and an early Notice of Allowance is earnestly sought. The undersigned may be contacted at the telephone number below at the Examiner's convenience if it would help in the prosecution of this matter.

Respectfully submitted,

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